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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/413,552 10/06/99 HAWKS

D 50944.2300

020322
SNELL & WILMER
ONE ARIZONA CENTER
400 EAST VAN BUREN
PHOENIX AZ 85004-0001

MMC2/0808

EXAMINER

NGO, H

ART UNIT

PAPER NUMBER

2831

DATE MAILED:

08/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/413,552

Applicant(s)

Hawks et al

Examiner

Hung V. Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 27, 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, line 1, "said connector" is unclear which one?

Claim 4, lines 2-3, "said connector" is unclear which one?

Claim 5, line 2, is unclear. Is it --each of the wires being coupled to one of said connectors--?

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemaire et al.

Lemaire et al disclose (as best shown in Fig 5) a die attach pad (10) having a bottom surface; a plurality of substantially flat electrical connectors (10) formed about a perimeter of the

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die attach pad; an encapsulant (14) surrounding a portion of said electrical connector and a portion of and said die attach pad, wherein said bottom surface of said die attach pad is substantially free of encapsulant.

Re claim 2, wherein said connectors and said pad are formed from a leadframe (col 7, lines 10-15).

Re claims 3, 4, the limitation "said connector and said pad are formed by etching a sheet of conductive material having removable material attached thereto" and "wherein said connector and said pad are attached to removable tape, and wherein said tape inhibits attachment of said encapsulant to said bottom surface of said pad" have been considered, but does not result in a structural difference. The presence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product. In re Stephens 145 USPQ 656 (CCPA 1965).

Re claim 5, further comprising a plurality of wires, each being coupled to one of said connectors (Fig 1).

Re claim 6, Lemaire et al disclose (as best shown in Fig 5) an electronic device package configured to facilitate electrical connection between a device (12) and a substrate, said package comprising: a plurality of row of electrical connectors (10) formed by etching a sheet of conductive material (col 7, lines 10-15); and an encapsulant (14) attached to a portion of each of said plurality of electrical connectors, wherein said encapsulant is molded to each said portion by

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exposing said electrical connectors and a removable material attached to said connectors to a mold process (Fig 7)(col 9, lines 35-45).

Re claim 7, a die attach pad (10) proximate said connectors and electrically isolated from said connectors (Fig 5).

Re claim 8, wherein said plurality of electrical connectors form a plurality of rows about a perimeter of the device (Fig 7).

Re claim 9, wherein said connectors are formed from a leadframe (col 7, lines 10-15).

Response to Arguments

Applicant's arguments filed 06-27-01 have been fully considered but they are not persuasive.

Applicant argues (1) that Lemaire et al does not disclose a plurality of substantially flat electrical connectors formed about a perimeter of the die attach pad, (2) that Lemaire et al does not disclose a plurality of rows of electrical connectors, (3) that Lemaire does not teach a plurality of wires coupled to one of said connectors. The examiner disagrees. With respect to (1) Lemaire et al disclose a plurality of substantially flat electrical connectors 10 formed about a perimeter of the die attach pad (see fig 5). With respect to (2), see Fig 7. With respect to (3), see Fig 1.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung V. Ngo whose telephone number is (703) 308-7614. The examiner can normally be reached on Tuesday to Friday from 8:30 am to 06:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax phone number for this Group is (703) 305-3431 or (703) 305-3432.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

HVN

July 31, 2001

Dean A. Reichard 8/3/01
Dean A. Reichard
Primary Examiner